



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Reddy *et al.*

Appl. No.: 10/698,924

Filed: October 31, 2003

For: **Novel Cyclic Phosphate Diesters of
1,3-Propane-1-Aryl Diols and
Their Use In Preparing Prodrugs**

Confirmation No.: 2985

Art Unit: 1626

Examiner: Taofiq A. Solola

Atty. Docket: 2358.0180003/RWE/AES

**Third Supplemental Information Disclosure Statement
Filing Under 37 C.F.R. § 1.97(b)**

Mail Stop RCE

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Forms PTO/SB/08A and PTO/SB/08B are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. This Third Supplemental Information Disclosure Statement is a continuation of Applicants' Second Supplemental Information Disclosure Statement filed on January 20, 2006 in connection with the above-captioned application.

Copies of documents **FP1** to **FP3** and **NPL1** to **NPL19** are submitted. However, in accordance with 37 C.F.R. § 1.98(a)(2), copies of documents **US1** to **US3**, U.S. patents and patent application publications cited on the attached Form PTO/SB/08A, are not submitted.

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits the following discussion of the relevance of non-English language documents **FP1**, **FP2**, **FP3**, **NPL9**, **NPL13**, and **NPL15** cited on Form PTO/SB/08B:

Document **FP1**, NL6511420, is in a foreign language. U.S. Pat. No. 3,328,388, cited as document **US1**, is believed to be an English language equivalent of document **FP1**.

Document **FP2**, WO 95/07287 A1, is in the French language. U.S. Pat. Appl. Publ. No. US 2002/0120130 A1, cited as document **US2**, and U.S. Pat. Appl. Publ. No. US 2005/0101776 A1, cited as document **US3**, are both believed to be English language equivalents of document FP2.

Document **FP3**, WO 97/49717 A1, is in the Russian language. An English language abstract of document FP3 is attached on accompanying PTO/SB/08B as document **NPL18**. An English language abstract of document FP3 is also located on the face page of the document.

Document **NPL9**, "SARTILLO-PISCIL, F., *et al.*, "Fosfato-ésteres cíclicos diastereoisoméricos: 5-bromo-4-fenil-2-fenoxi-2-oxo-1,3,2-dioxafosforinanos, precursores de radicales libres alquilo β -fosfatoxi y generadores de radicales catiónicos en medio no oxidativo," *Revista de la Sociedad Química de México* 46:330-334, Sociedad Química de México (2002), is in the Spanish language. An English language abstract of this document is located on the face page of document NPL9. In addition, an unverified English language translation of document NPL9 is attached as document **NPL10**.

Document **NPL13**, TAKAKU, H., *et al.*, "Synthesis of Deoxyribonucleotides Using Cesium Fluoride by the Phosphotriester Approach," *Nippon Kagaku Kaihi* (no. 10):1968-1973, The Chemical Society of Japan, Inc. (1985), is in the Japanese language. An English language abstract of this document is located at the end of document NPL13. In addition, an unverified English language translation of document NPL13 is attached as document **NPL14**.

Document **NPL15**, THUONG, N.T. and Chabrier, P., "New Method for Preparation of Phosphoryl choline, of phosphoryl homocholine and their derivatives," *Bull. Soc. Chim. France* 1-2:667-671, Masson and Co. (1974), is in the French language. An unverified English language translation of document NPL15 is attached as document **NPL16**.

In accordance with the recent Federal Circuit decision in *Dayco Prods., Inc. v. Total Containment, Inc.* 329 F.3d 1358 (Fed. Cir. 2003), Applicants submit herewith an Office Action, which is directed to related technical subject matter:

Office Action for related U.S. Patent Application No. 10/698,928, inventors Boyer, S., *et al.*, filed October 31, 2003, mailed July 5, 2005, cited herein as document EV.

The identification of this Office Action is not to be construed as a waiver of secrecy as to that application now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited application and the art cited therein during examination.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

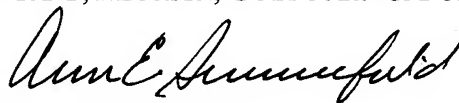
This Information Disclosure Statement is being filed before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No statement or fee is required.

It is respectfully requested that the Examiner initial and return copies of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Ann E. Summerfield
Attorney for Applicants
Registration No. 47,982

Date: May 4, 2006

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600

525221_1.DOC



Equivalent of Form PTO/SB/08A (07-05)

Approved for use through 07/31/2006.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				Complete if Known	
THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Application Number	10/698,924
				Filing Date	October 31, 2003
				First Named Inventor	K. Raja Reddy
				Art Unit	1626
				Examiner Name	Taofiq A. Solola
Sheet	1	of	1	Attorney Docket Number	2358.0180003/RWE/AES

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (If Known)			
	US1	3,328,388	06/27/1967	Shen <i>et al.</i>	
	US2	2002/0120130 A1	08/29/2002	Gosselin <i>et al.</i>	
	US3	2005/0101776 A1	05/12/2005	Gosselin <i>et al.</i>	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
	FP1	NL6511420	03/03/1966	Merck & Co., Inc.		
	FP2	WO 95/07287 A1	03/16/1995	Centre National de la Recherche Scientifique		
	FP3	WO 97/49717 A1	12/31/1997	Fedorov, I.I. <i>et al.</i>		Abs

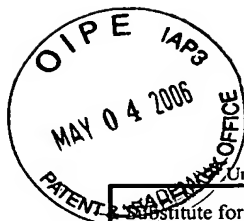
525260_1.DOC

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. *Applicant's unique citation designation number (optional). * See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. * Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. * Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. * Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (07-05)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				Complete if Known	
THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/698,924
				Filing Date	October 31, 2003
				First Named Inventor	K. Raja Reddy
				Art Unit	1626
				Examiner Name	Taofiq A. Solola
Sheet	1	of	2	Attorney Docket Number	2358.0180003/RWE/AES

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume issue number(s), publisher, city and/or country where published		T ²
	NPL1	BRAESS, J. <i>et al.</i> "Oral Cytarabine Ocfosfate in Acute Myeloid Leukemia and non-Hodgkin's Lymphoma - Phase I/II Studies and Pharmacokinetics", <i>Leukemia</i> 12:1618-1626, Stockton Press (1998)		
	NPL2	CHABNER, B.A., "Cytidine Analogues", in <i>Cancer Chemotherapy: Principles and Practice</i> , Lippincott Williams & Wilkins (1990)		
	NPL3	CHABNER, B.A., <i>et al.</i> , "Purification and Properties of Cytidine Deaminase from Normal and Leukemic Granulocytes", <i>Journal of Clinical Investigation</i> 53:922-931, American Society for Clinical Investigation (1974)		
	NPL4	COHEN, S.S. "The Mechanisms of Lethal Action of Arabinosyl Cytosine (araC) and Arabinosyl Adenine (araA)", <i>Cancer</i> 40:509-518, Wiley (1977)		
	NPL5	GRANT, S., "Biochemical Modulation of Cytosine Arabinoside", <i>Pharmac. Ther.</i> 48:29-44, Pergamon Press plc (1990)		
	NPL6	LEACH, W.B. <i>et al.</i> "Toxicity Studies in Mice Treated with 1-β-D-Arabinofuranosyl-cytosine (ara-C)", <i>Cancer Research</i> 29:529-535, American Association for Cancer Research (1969)		
	NPL7	PLUNKETT, W. <i>et al.</i> "Pharmacologically Directed Ara-C Therapy for Refractory Leukemia", <i>Seminars in Oncology</i> 12(2) Supp. 3:20-30, W.B. Saunders (1985)		
	NPL8	RUSTUM, Y.M., <i>et al.</i> "1-β-Arabinofuranosylcytosine in Therapy of Leukemia: Preclinical and Clinical Overview" <i>Pharmac. Ther.</i> 56:307-321, Pergamon Press Ltd. (1992)		
	NPL9	SARTILLO-PISCIL, F., <i>et al.</i> , "Fosfato-ésteres cíclicos diastereoisoméricos: 5-bromo-4-fenil-2-fenoxi-2-oxo-1,3,2-dioxafosforinanos, precursores de radicales libres alquilo β-fosfatoxi y generadores de radicales catiónicos en medio no oxidativo," <i>Rev. Soc. Quim. Mexico</i> 46:330-334, Journal of the Mexican Chemical Society (December 2002)		Yes
	NPL10	English Translation of SARTILLO-PISCIL, F., <i>et al.</i> , "Cyclic diastereoisomeric phosphate esters: 5-bromo-4-phenyl-2-phenoxy-2-oxo-1,3,2-dioxaphosphorinanes, free β-(phosphatoxy) alkyl radical precursors and cation radical generators in non-oxidative medium," <i>Rev. Soc. Quim. Mexico</i> 46:330-334, Journal of the Mexican Chemical Society (December 2002)		

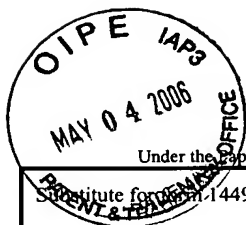
Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (07-05)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Institute for Patent & Trademark 1449/PTO THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	10/698,924
				Filing Date	October 31, 2003
				First Named Inventor	K. Raja Reddy
				Art Unit	1626
				Examiner Name	Taofiq A. Solola
Sheet 2 of 2				Attorney Docket Number	2358.0180003/RWE/AES
	NPL11	SHIMMA, N. <i>et al.</i> , "The Design and Synthesis of a New Tumor-Selective Fluoropyrimidine Carbamate, <i>Capecitabine</i> " <i>Bioorganic & Medicinal Chemistry</i> 8:1697-1706, Elsevier Science Ltd. (2000)			
	NPL12	SUTO, T. <i>et al.</i> "The Effect of YNK-01 (an Oral Prodrug of Cytarabine) on Hepatocellular Carcinoma" <i>Seminars in Oncology</i> 24(2) Suppl 6:S6-122-S6-129, W.B. Saunders (1997)			
	NPL13	TAKAKU, H., <i>et al.</i> , "Synthesis of Deoxyribooligonucleotides Using Cesium Fluoride by the Phosphotriester Approach," <i>Nippon Kagaku Kaishi</i> (no. 10):1968-1973, The Chemical Society of Japan, Inc. (1985)			
	NPL14	English translation of TAKAKU, H., <i>et al.</i> , "Synthesis of Deoxyribooligonucleotides Using Cesium Fluoride by the Phosphotriester Approach," <i>Nippon Kagaku Kaishi</i> (no. 10):1968-1973, The Chemical Society of Japan, Inc. (1985)			
	NPL15	THUONG, N.-T. and Chabrier, P., "Nouvelle méthode de préparation de la phosphorylcholine, de la phosphorylhomocholine et de leurs dérivés," <i>Bull. Soc. Chim. France</i> 1-2:667-671, Masson and Co. (1974)			
	NPL16	English translation of THUONG, N.T. and Chabrier, P., "New Method for Preparation of Phosphoryl choline, of phosphoryl homocholine and their derivatives," <i>Bull. Soc. Chim. France</i> 1-2:667-671, Masson and Co. (1974)			
	NPL17	YOSHIDA, Y. <i>et al.</i> , "Participation of the Peroxisomal β -Oxidation System in the Chain-Shortening of PCA ₁₆ , A Metabolite of the Cytosine Arabinoside Prodrug, YNK01, in Rat Liver" <i>Biochemical Pharmacology</i> 39(10):1505-1512, Pergamon Press plc (1990)			
	NPL18	Dialog File 351, Accession No. 11683821, WPI English language abstract of WO 97/49717 (Document FP3 listed on accompanying PTO/SB/08A form)			
	NPL19	Copy of Office Action for United States Patent Application No. 10/698,928, Boyer <i>et al.</i> , mailed March 13, 2006			

525261_1.DOC

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.